CLINOVATE
Advances in Medicine and Healthcare
eISSN: 3107-4421

Volume 2, Issue 1, Jan-April 2026
DOI: 10.5281/zenodo.19670928

Original Article

Medico-Legal Awareness Among Faculty Members in a Tertiary Care Teaching Hospital in Central India: A Cross-Sectional Study of IPC and CrPC Knowledge

Sharjeel Khan[1*], Shadma Quazi[2], Nitin Sharnagat[3], Shoaib Alimohammed Fazlani[4]

[1]*Assoc. Prof., Department of Forensic Medicine, NKP Salve Institute of Medical Sciences and Research Centre, Nagpur, MH, India*
[2]*Assoc. Prof., Department of Pharmacology, NKP Salve Institute of Medical Sciences and Research Centre, Nagpur, MH, India*
[3]*Asst. Prof., Department of Forensic Medicine, Pacific Institute of Medical Sciences (Constituent Unit of Sai Tirupati University), Udaipur, RJ, India*
[4]*Prof., Department of Radiology, Madhubani Medical College & Hospital, Madhubani, BR, India*

Abstract

Background: Medico-legal knowledge is an essential component of medical practice, particularly in the context of increasing litigation and legal accountability in healthcare. Despite its importance, gaps in awareness of legal provisions such as the Indian Penal Code (IPC) and Criminal Procedure Code (CrPC) persist among healthcare professionals.
Methods: A descriptive cross-sectional study was conducted over a period of three months among 120 faculty members from clinical and non-clinical departments. Data were collected using a validated, self-administered questionnaire assessing knowledge of IPC sections and CrPC provisions. Responses were scored and categorized into adequate, moderate, and poor knowledge levels. Statistical analysis was performed using SPSS version 25, with a p-value <0.05 considered statistically significant.
Results: Among the participants, 35.0% demonstrated adequate knowledge, 38.3% had moderate knowledge, and 26.7% had poor knowledge of medico-legal aspects. Awareness was highest for IPC Section 319 (78.3%) and lowest for punishment-related sections (57.5%). Knowledge of CrPC provisions ranged from 55.0% to 68.3%. Faculty from clinical departments had significantly higher knowledge levels compared to non-clinical faculty (p = 0.042). Similarly, participants with greater professional experience demonstrated significantly higher scores (p = 0.006). No significant gender-based differences were observed.
Conclusion: The study reveals moderate medico-legal awareness among faculty members, with significant gaps in specific legal domains. Targeted educational interventions, including structured training programs and continuing medical education, are recommended to enhance medico-legal competence and ensure safer clinical practice.

Keywords: *Medico-legal awareness, Indian Penal Code, Criminal Procedure Code, healthcare professionals, cross-sectional study*

How to Cite: Khan S, Quazi S, Sharnagat N, et al. Medico-Legal Awareness Among Faculty Members in a Tertiary Care Teaching Hospital in Central India: A Cross-Sectional Study of IPC and CrPC Knowledge. CLINOVATE: Advances in Medicine and Healthcare 2026 Apr xx; 2(1). DOI: 10.5281/zenodo.19670928

Introduction

The practice of medicine is inherently intertwined with legal and ethical responsibilities, making medico-legal knowledge an essential component of clinical competence.[1] In recent years, there has been a notable increase in medico-legal cases against healthcare professionals, driven by heightened patient awareness, evolving legal frameworks, and greater scrutiny of medical practice.[2] In this context, a sound understanding of legal provisions such as the Indian Penal Code (IPC) and the Criminal Procedure Code (CrPC) is crucial for ensuring appropriate clinical decision-making, accurate documentation, and effective participation in judicial processes.[3]
Medical practitioners are often required to manage medico-legal cases involving injuries, assaults, and accidental events, where accurate interpretation of IPC sections, such as those defining "hurt" and "grievous hurt" is critical.[4,5] Additionally, compliance with CrPC provisions related to reporting, documentation, and legal obligations is essential to uphold professional accountability and avoid legal repercussions. Despite the importance of these competencies, medico-legal training during undergraduate and postgraduate education is often limited in scope and largely theoretical, with inadequate emphasis on practical application.
Previous studies conducted in India have consistently highlighted gaps in medico-legal awareness among healthcare professionals, including both junior doctors and practicing clinicians.[6,7] These deficiencies may lead to improper documentation, delayed reporting of medico-legal cases, and increased vulnerability to litigation. Furthermore, faculty members, who serve as educators and role models for future medical professionals, are expected to possess a higher level of medico-legal competence. However, data assessing their level of awareness remain limited.

Received: 15/01/2026, Revised: 28/03/2026, Accepted: 13/04/2026, Published: xx/04/2026
*Correspondence and requests should be addressed to S.K. via shar4041@gmail.com

Given this background, the present study was undertaken to assess the level of knowledge regarding relevant IPC sections and CrPC provisions among faculty members in a tertiary care teaching institution. Additionally, the study aimed to evaluate the association between medico-legal awareness and factors such as department, gender, and years of professional experience. By identifying existing knowledge gaps, the study seeks to provide insights that may inform targeted educational interventions and strengthen medico-legal preparedness among medical professionals.

Methods

Study Design and Setting
A descriptive cross-sectional study was conducted at a tertiary care teaching hospital in Central India after approval from the Institutional Ethics Committee (NKPSIMS & RC and LMH/IEC/1/2024). The institution caters to a diverse patient population and serves as a center for undergraduate and postgraduate medical education, thereby providing an appropriate setting for evaluating medico-legal awareness among faculty members involved in clinical practice and academic responsibilities.

Study Population and Sampling
The study population comprised faculty members from clinical, para-clinical, and pre-clinical departments who were actively engaged in patient care, teaching, or both, and were expected to possess fundamental medico-legal knowledge relevant to their professional duties. A total of 120 participants were included in the study. The sample size was determined based on feasibility and availability of faculty members during the study period. A non-probability convenience sampling technique was employed, wherein eligible participants who were available and willing to participate were recruited. Although this method may limit external validity, it was considered appropriate given the exploratory nature of the study.

Eligibility Criteria
Faculty members from both clinical and non-clinical departments who provided informed consent were included in the study. Interns and postgraduate students were excluded, as were faculty members who were unavailable during the study period or declined to participate.

Study Instrument and Validation
Data were collected using a structured, self-administered questionnaire specifically developed for the purpose of the study. The instrument consisted of three sections, including demographic details such as age, gender, department, and years of experience; assessment of knowledge regarding relevant sections of the Indian Penal Code (IPC), including Sections 319, 320, 321, 323, 325, and 326; and evaluation of awareness regarding provisions of the Criminal Procedure Code (CrPC), particularly those related to medico-legal case reporting, documentation requirements, and legal responsibilities of medical practitioners.
The questionnaire was subjected to content validation by experts from the departments of forensic medicine and legal medicine. Content validity was ensured through a comprehensive review of standard forensic medicine textbooks and relevant literature. A pilot study was conducted among 10 faculty members, who were subsequently excluded from the final analysis, to assess clarity, relevance, and feasibility of the instrument. Based on the feedback obtained, necessary modifications were incorporated to improve the overall quality and comprehensibility of the questionnaire.

Data Collection Procedure
Participants were approached personally and informed about the objectives and nature of the study. Written informed consent was obtained prior to participation. The questionnaire was self-administered, and participants were provided adequate time to complete it. Measures were taken to ensure anonymity and confidentiality throughout the data collection process, and no personally identifiable information was recorded.

Scoring System and Knowledge Categorization
Each correct response in the questionnaire was assigned one mark, while incorrect or unanswered responses were assigned zero marks. Based on the total scores obtained, participants' knowledge levels were categorized into three groups: adequate knowledge (≥70% correct responses), moderate knowledge (50–69%), and poor knowledge (<50%). This categorization was adopted in accordance with previously published studies assessing medico-legal knowledge among healthcare professionals.

Statistical Analysis
Data were entered into Microsoft Excel and subsequently analyzed using the Statistical Package for the Social Sciences (SPSS) version 25. Descriptive statistics were used to summarize the data, with categorical variables expressed as frequencies and percentages, and continuous variables presented as mean and standard deviation. Inferential statistical tests, including the Chi-square test and independent t-test, were applied to assess associations between variables and compare mean knowledge scores between groups. A p-value of less than 0.05 was considered statistically significant.

Results

A total of 120 faculty members participated in the study. The mean age of participants was **38.6 ± 8.9 years** (range: 26–58 years). The study population included 68 (56.7%) males and 52 (43.3%) females. The majority of participants belonged to clinical departments (n = 72, 60.0%), while 48 (40.0%) were from para-clinical and pre-clinical departments. The mean duration of professional experience was 11.2 ± 7.3 years.

Knowledge regarding Indian Penal Code (IPC) sections varied among participants. The highest awareness was observed for IPC Section 319 (hurt), with 94 (78.3%) participants responding correctly. This was followed by IPC Section 320 (grievous hurt), correctly identified by 88 (73.3%) participants. Knowledge of IPC Section 321 (voluntarily causing hurt) was comparatively lower (n = 76, 63.3%). Awareness of punishment-related provisions (IPC Sections 323, 325, and 326) was identified in 69 (57.5%) participants.

With respect to Criminal Procedure Code (CrPC) provisions, 82 (68.3%) participants demonstrated adequate knowledge of medico-legal case reporting. Awareness regarding documentation requirements was observed in 74 (61.7%) participants, while knowledge of **legal responsibilities** of medical practitioners was comparatively lower (n = 66, 55.0%).

Based on the scoring system, 42 (35.0%) participants demonstrated adequate knowledge, while 46 (38.3%) had moderate knowledge and 32 (26.7%) were categorized as having poor knowledge. Further analysis revealed that faculty from clinical departments had significantly higher levels of adequate knowledge compared to their non-clinical counterparts (41.7% vs 25.0%). The association

between department and knowledge level was found to be statistically significant ($\chi^2 = 4.12$, $p = 0.042$). Additionally, the mean knowledge score among clinical faculty (18.4 ± 3.2) was significantly higher than that of non-clinical faculty (16.7 ± 3.8) ($p = 0.018$). Participants with ≥10 years of experience demonstrated significantly higher knowledge scores compared to those with less experience (19.1 ± 2.9 vs 16.5 ± 3.6, $p = 0.006$). However, no statistically significant difference was observed in knowledge scores between male and female participants ($p = 0.27$). (Table 1)

Table 1. Association Between Variables and Knowledge Levels

Variable	Category	Adequate (%)	Moderate (%)	Poor (%)	p-value
Department	Clinical	41.7	36.1	22.2	**0.042***
	Non-clinical	25.0	41.7	33.3	
Gender	Male	36.8	38.2	25.0	0.27
	Female	32.7	38.5	28.8	
Experience	≥10 years	45.5	36.4	18.1	**0.006***
	<10 years	22.2	40.7	37.1	

**statistically significant*

Discussion

The present study assessed medico-legal awareness among faculty members in a tertiary care teaching institution and revealed a moderate overall level of knowledge, with only 35.0% of participants demonstrating adequate understanding. While a majority of faculty members exhibited basic awareness of commonly encountered Indian Penal Code (IPC) provisions, notable gaps were identified in areas related to punishment sections and legal responsibilities under the Criminal Procedure Code (CrPC). These findings highlight a critical need for strengthening medico-legal education among medical professionals, even at the faculty level.

In the current study, awareness of IPC Sections 319 and 320 was relatively high, suggesting that clinicians are more familiar with definitions of "hurt" and "grievous hurt," which are frequently encountered in routine medico-legal practice. However, comparatively lower awareness regarding IPC Sections 323, 325, and 326 indicates insufficient understanding of the legal consequences and punitive aspects of such offenses. This discrepancy is concerning, as incomplete knowledge may affect the accuracy of medico-legal documentation and expert testimony, potentially influencing judicial outcomes.

The study also demonstrated suboptimal awareness regarding CrPC provisions, particularly in relation to documentation requirements and legal responsibilities of medical practitioners. Although a majority of participants were aware of medico-legal case reporting, only about half demonstrated adequate understanding of their broader legal obligations. This finding aligns with previous studies, which have consistently reported gaps in medico-legal knowledge among healthcare professionals, particularly in non-clinical domains.[5-9] The lack of comprehensive awareness may be attributed to insufficient emphasis on applied medico-legal training during both undergraduate and postgraduate medical education.

An important finding of the present study was the significantly higher level of knowledge observed among faculty members from clinical departments compared to their non-clinical counterparts. This is likely due to greater exposure to medico-legal cases in clinical practice, which reinforces practical understanding of legal provisions. Similarly, participants with greater professional experience demonstrated significantly higher knowledge scores, suggesting that experiential learning plays a key role in developing medico-legal competence. However, reliance on experience alone is neither standardized nor sufficient, and structured training remains essential.

Interestingly, no significant gender-based differences were observed in medico-legal knowledge, indicating that awareness levels are more strongly influenced by professional exposure and experience rather than demographic factors. This finding is consistent with existing literature and reinforces the need for uniform educational interventions across all faculty groups.[10,11]

The findings of this study have important implications for medical education and institutional policy. Given the increasing incidence of medico-legal cases and the growing emphasis on legal accountability in healthcare, it is imperative to incorporate structured medico-legal training programs for faculty members. Regular workshops, continuing medical education (CME) sessions, and interdisciplinary collaboration with forensic medicine and legal experts may help bridge the identified knowledge gaps. Furthermore, integrating case-based learning approaches may enhance retention and practical application of medico-legal principles.

Despite its strengths, including a focused assessment and use of a validated questionnaire, the present study has certain limitations. The use of convenience sampling may introduce selection bias, and the single-center design limits the generalizability of the findings. Additionally, as the study relied on self-reported responses, there is a possibility of response bias, with participants potentially overestimating their knowledge. Future multicentric studies with larger sample sizes and objective assessment tools are recommended to provide a more comprehensive understanding of medico-legal awareness among healthcare professionals.

Conclusion

The present study demonstrates that medico-legal awareness among faculty members in a tertiary care teaching institution remains suboptimal, with only a limited proportion exhibiting adequate knowledge of key legal provisions under the Indian

Penal Code and Criminal Procedure Code. While clinical faculty and those with greater professional experience showed comparatively better understanding, significant gaps persist across essential domains, particularly in areas related to legal responsibilities and punitive provisions. These findings underscore the inadequacy of relying solely on experiential learning and highlight the need for structured, competency-based medico-legal training integrated into both academic and continuing medical education frameworks. Strengthening medico-legal literacy at the faculty level is imperative not only to ensure legally sound clinical practice but also to enhance the quality of medical education delivered to future healthcare professionals. Future multicentric studies with larger sample sizes are warranted to validate these findings and guide the development of standardized training interventions.

Declarations

Ethical Approval and Consent to Participate: Ethical approval was obtained from the Institutional Ethics Committee of NKPSIMS & RC and LMH (Approval No.: NKPSIMS & RC and LMH/IEC/1/2024) prior to commencement of the study. The study was conducted in accordance with the principles of the Declaration of Helsinki. Written informed consent was obtained from all participants, and confidentiality was strictly maintained with no collection of personal identifiers.
Consent for Publication: Not applicable.
Availability of Data and Materials: The datasets analyzed during the current study are available from the corresponding author on reasonable request.
Competing Interests: The authors declare that they have no competing interests.
Funding: The authors received no financial support for the research, authorship, and/or publication of this study.
Authors' Contributions: All authors contributed substantially to the conception, design, data acquisition, analysis, and drafting of the manuscript, and approved the final version.
Acknowledgements: The authors thank all faculty members who participated in the study for their cooperation.
AI Use Disclosure Statement: This manuscript was prepared with assistance from ChatGPT (OpenAI, GPT-5.2) for language refinement and structuring. All scientific content, interpretations, and conclusions were independently developed and verified by the authors, who take full responsibility for the integrity of the work.

References

1. Constantin GD, Luca RE, Veja I, et al. Ethical Decision-Making in Medical Practice: The Role of Moral and Business Philosophies. Healthcare (Basel). 2025 Dec 15;13(24):3296. doi: 10.3390/healthcare13243296
2. Nacu AG, Constantin DA, Rogozea LM. Ethical Dilemmas and Legal Responsibilities in Patient Care: An Analysis of Hospital Safety. Healthcare (Basel). 2025 Nov 4;13(21):2800. doi: 10.3390/healthcare13212800
3. Agrawal A. Medical negligence: Indian legal perspective. Ann Indian Acad Neurol. 2016 Oct;19(Suppl 1):S9-S14. doi: 10.4103/0972-2327.192889
4. Madadin M, Alqarzaie AA, Alzahrani RS, et al. Characteristics of Medico-Legal Cases and Errors in Medico-Legal Reports at a Teaching Hospital in Saudi Arabia. Open Access Emerg Med. 2021 Dec 2;13:521-526. doi: 10.2147/OAEM.S341893
5. Raveesh BN, Nayak RB, Kumbar SF. Preventing medico-legal issues in clinical practice. Ann Indian Acad Neurol. 2016 Oct;19(Suppl 1):S15-S20. doi: 10.4103/0972-2327.192886
6. Agrawal D, Heda A, Ghosh S, et al. Knowledge, attitude, and practice patterns of Indian ophthalmologists regarding medicolegal issues. Indian J Ophthalmol. 2023 Dec 1;71(12):3690-3695. doi: 10.4103/IJO.IJO_1084_23
7. Nath A, Ropmay AD, Slong D, et al. A cross-sectional study on knowledge of registered medical practitioners, regarding management of medico-legal cases in Meghalaya. J Family Med Prim Care. 2022 Mar;11(3):904-907. doi: 10.4103/jfmpc.jfmpc_49_21
8. Martinez O, Boles J, Muñoz-Laboy M, et al. Bridging Health Disparity Gaps through the Use of Medical Legal Partnerships in Patient Care: A Systematic Review. J Law Med Ethics. 2017 Jun;45(2):260-273. doi: 10.1177/1073110517720654
9. Plaiasu MC, Alexandru DO, Nanu CA. Physicians' legal knowledge of informed consent and confidentiality. A cross-sectional study. BMC Med Ethics. 2022 Sep 16;23(1):93. doi: 10.1186/s12910-022-00835-3
10. Shihah ASB, Alrashed AH, Al-Abduljabbar KA, et al. Awareness of medical law among health care practitioners in Saudi Arabia. Saudi Med J. 2022 Aug;43(8):954-958. doi: 10.15537/smj.2022.43
11. Al Syed S, Abou Hashish EA, Bajamal E, et al. Knowledge of the Patients' Bill of Rights and Influencing Factors Among University Nursing Students. Cureus. 2023 May 2;15(5):e38433. doi: 10.7759/cureus.38433

This article is published under the terms of the Creative Commons Attribution 4.0 International License (CC BY 4.0)